



9th PACKAGING

AND CONVERTING INNOVATION FORUM

5th & 6th, October 2023 | Berlin, Germany

PRODUCT AND PACKAGING TAKE BACK SCHEMES

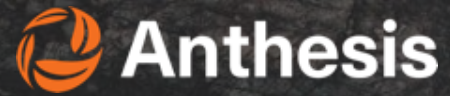
Designing and implementing
successful take back schemes for
used devices and packaging

October 2023



Photo by Nastya Dulhiier on Unsplash





THE SUSTAINABILITY ACTIVATOR.

ABOUT ANTHESIS



Strategy + Governance



Supply Chain + Operations



Sustainable Products + Services



Brand + Communications



Transactions + Finance



Climate + Net Zero Solutions



Education + Culture



Cities + Environments



Certified



Corporation

TOPICS



WHAT
WHY
HOW



01 WHAT ARE TAKE BACK SCHEMES?



Photo by Christopher Vega on Unsplash






A BROAD DEFINITION

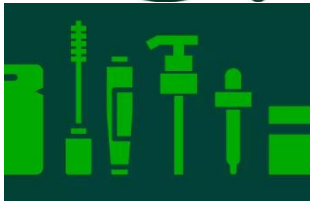
Take back schemes are typically initiatives funded and organised by the private sector to collect and treat end of life consumer products and packaging.

CORE OPERATIONAL ELEMENTS OF TAKE BACK SCHEMES ARE....



EXAMPLES OF TAKE BACK SCHEMES

Material type	Scheme examples
Pharmaceutical devices and packaging 	Inhalers, injection pens and blister packs, contact lenses
Nicotine products 	Disposable and rechargeable vaping devices, consumables and cigarette butts
Film and multilayer packaging 	Carrier bags, coffee cups, crisp packets
Personal care 	Cosmetics, tubes and pumps, dental care
Contaminated and complex packaging 	Coffee pods, crisp tubes



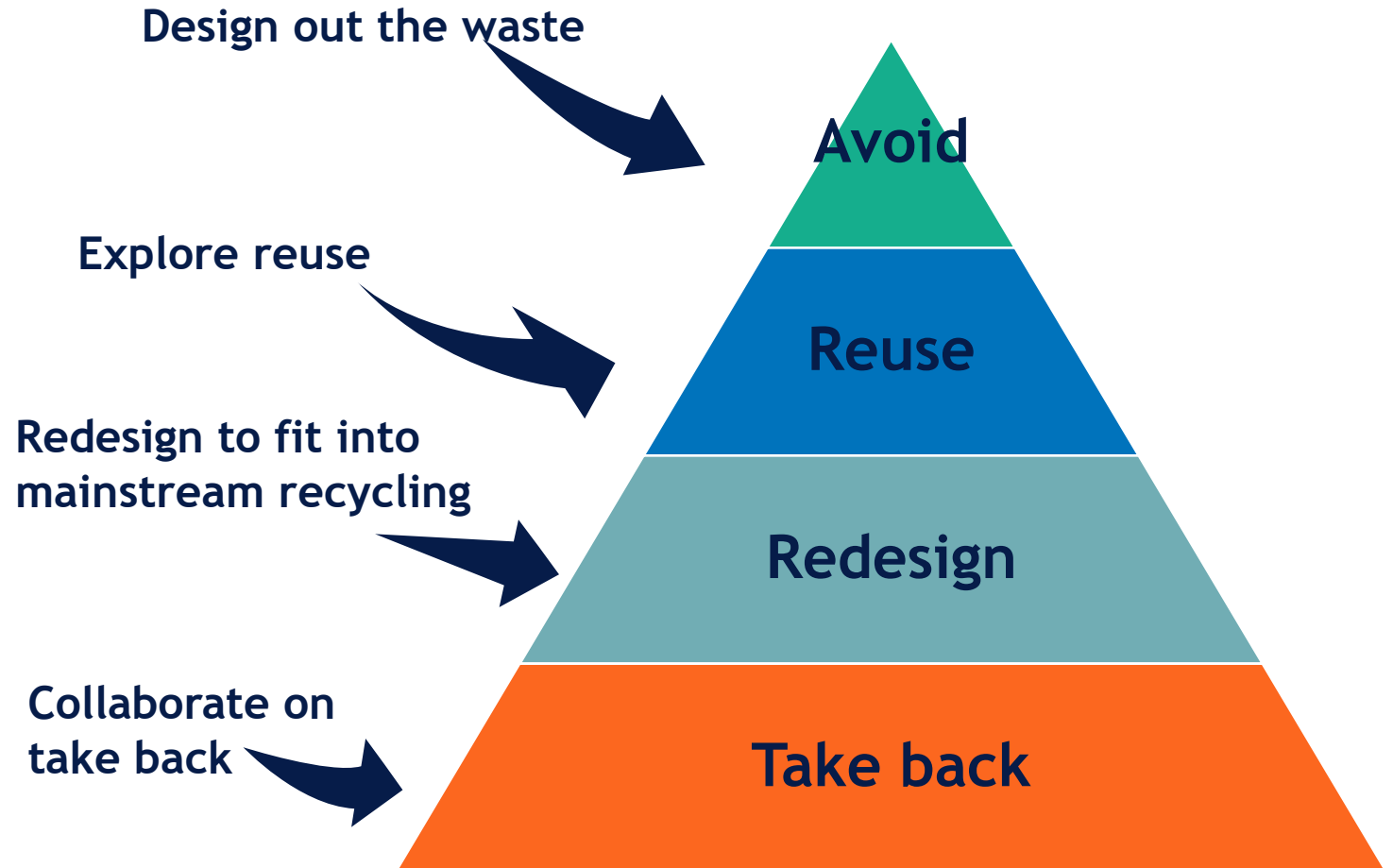
TAKE BACK SCHEMES ARE NOT THE FIRST OPTION



Take back schemes can be operationally complex, expensive and have low capture.

They should be implemented only when other options are not available.

They can be a good way to kick start a system before it builds scale.



02 WHY IMPLEMENT TAKE BACK SCHEMES



Waste is the most tangible form of pollution...

...the products and packaging which become waste are a critical interface between your company and the end user.

Waste affects human health and social equality as well as the environment

“Scientific evidence on the waste-related health effects is not conclusive, but suggests the possible occurrence of serious adverse effects, including mortality, cancer, reproductive health, and milder effects affecting well-being”

World Health Organisation



Photo by Dulana Kodithuwakku on Unsplash

THERE IS INCREASING PUBLIC AWARENESS OF ENVIRONMENTAL ISSUES AND DOING THE RIGHT THING IS IMPORTANT TO CONSUMERS

A **‘growing amount of waste’** is one of the **top three environmental concerns** for the public in Europe

78%

Agree environmental issues have a direct effect on their daily life and health

67%

Believe products should be designed to facilitate recycling of plastic and industry and retailers should make an effort to reduce plastic packaging

68%

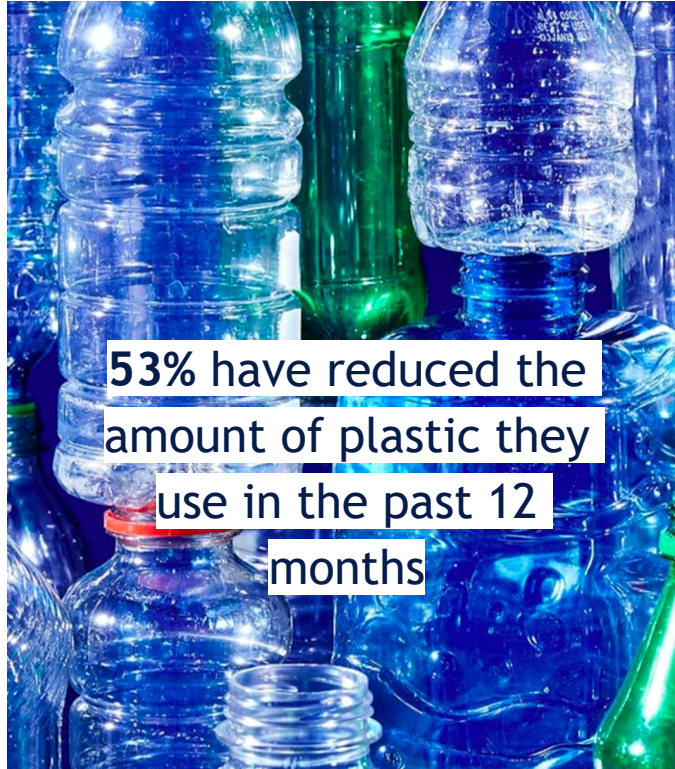
Agree their consumption habits adversely affect the environment in Europe and the rest of the world

AND THEY ARE TAKING ACTION



**73% of US consumers &
82% of UK consumers
choose “greener”
packaging**

Sustainable packaging: consumer views Report GWI 2021



**53% have reduced the
amount of plastic they
use in the past 12
months**



**Packaging recycling rates
have hit nearly 80% in
parts of Europe and over
70% in parts of the US**

Eurostat 2020 data and Eunomia 50 States of Recycling 2021

THOSE COMPANIES THAT COMMIT TO SUSTAINABILITY REAP BENEFIT

INVESTORS



98%

of investors in said they evaluate non-financial (ESG) disclosures, either formally or informally

SOURCE: EY 2020

SALES

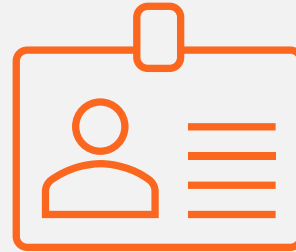


7x

faster growth of 'Sustainably Marketed' CPG products in US compared to others

SOURCE: NYU Stern

TALENT



71%

of employees and job seekers said environmentally sustainable companies are "more attractive employers".

SOURCE: IBM Institute for Business Value 2021

OPERATIONS

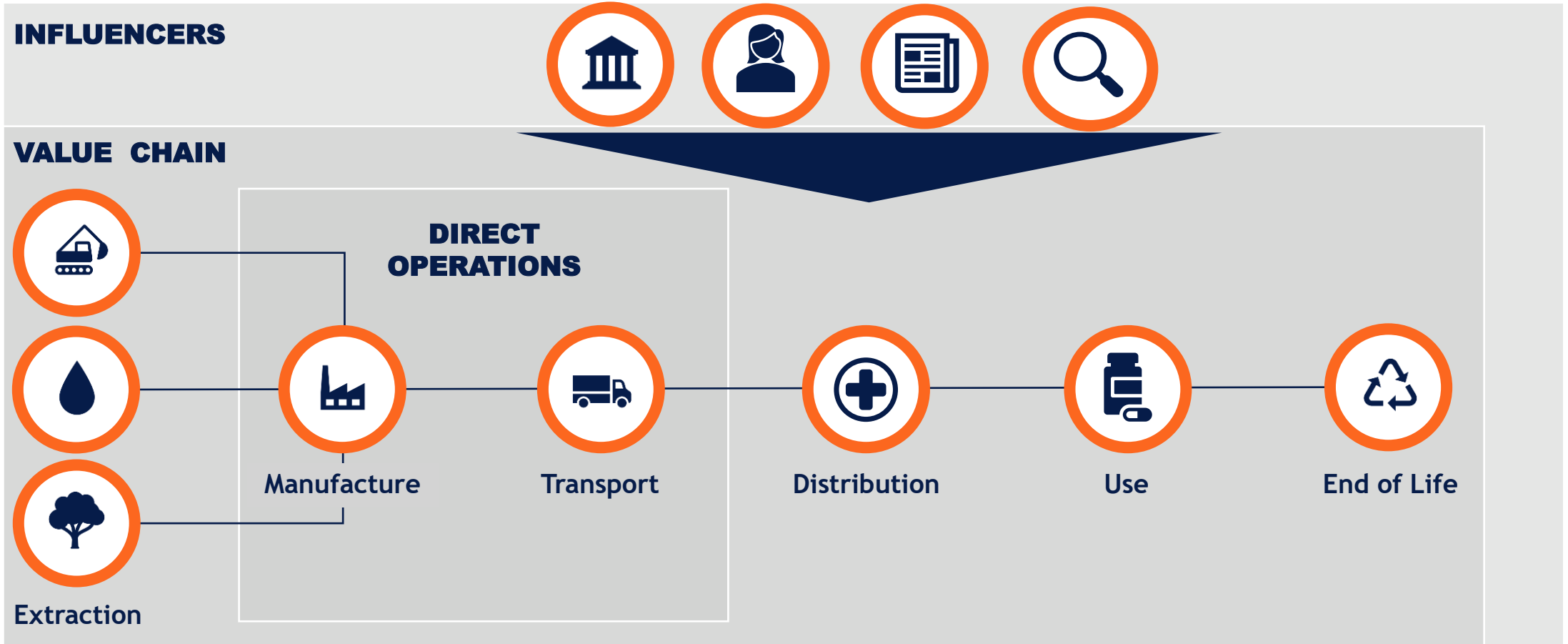


€1.2bn

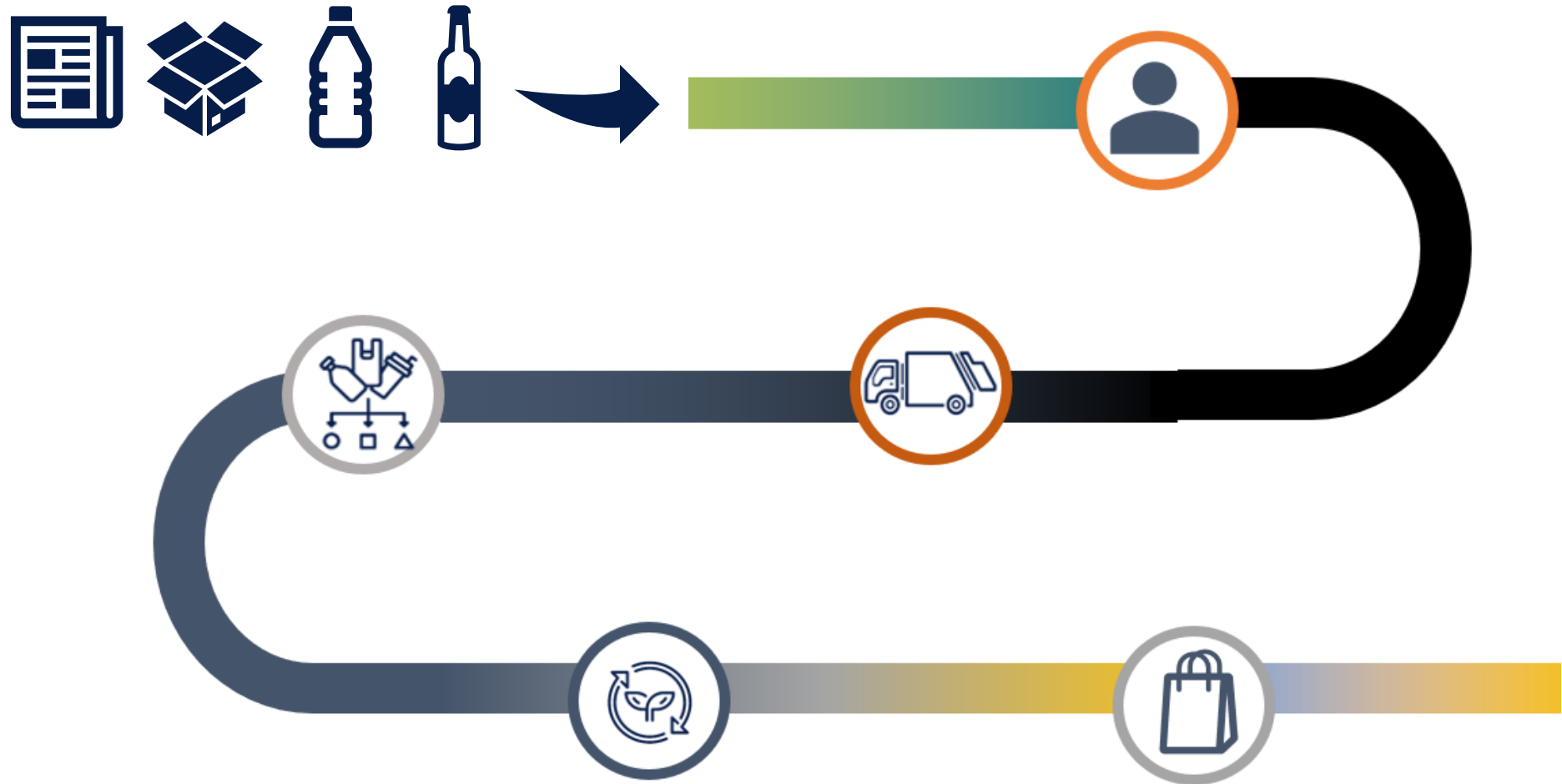
in estimated costs avoided by Unilever in energy, water and materials efficiencies 2010-2020

SOURCE: Unilever 2021

THERE ARE INCREASING PRESSURES FOR COMPANIES TO TAKE RESPONSIBILITY BEYOND THE TRADITIONAL VALUE CHAIN



MANY COUNTRIES NOW HAVE WELL DEVELOPED RECYCLING SYSTEMS FOR STANDARD FORMATS OF PACKAGING MATERIALS



HOWEVER PHARMA MATERIALS SIT OUTSIDE 'NORMAL' FORMATS



Multiple materials



Problematic plastics



Pressurised gases



Product residues



Infection risk



Non-standard shapes

AND THIS ISN'T CONFINED TO PHARMACEUTICAL PRODUCTS AND PACKAGING



Multiple materials



Product residues



Problematic
plastics/materials



Uneven access to
infrastructure



To enable reuse



Non-standard
shapes

WHY IMPLEMENT TAKE BACK SCHEMES?



Brand trust



Environment



Compliance



Control outcomes



**Supply chain
resources**

03

HOW TO IMPLEMENT TAKE BACK SCHEMES

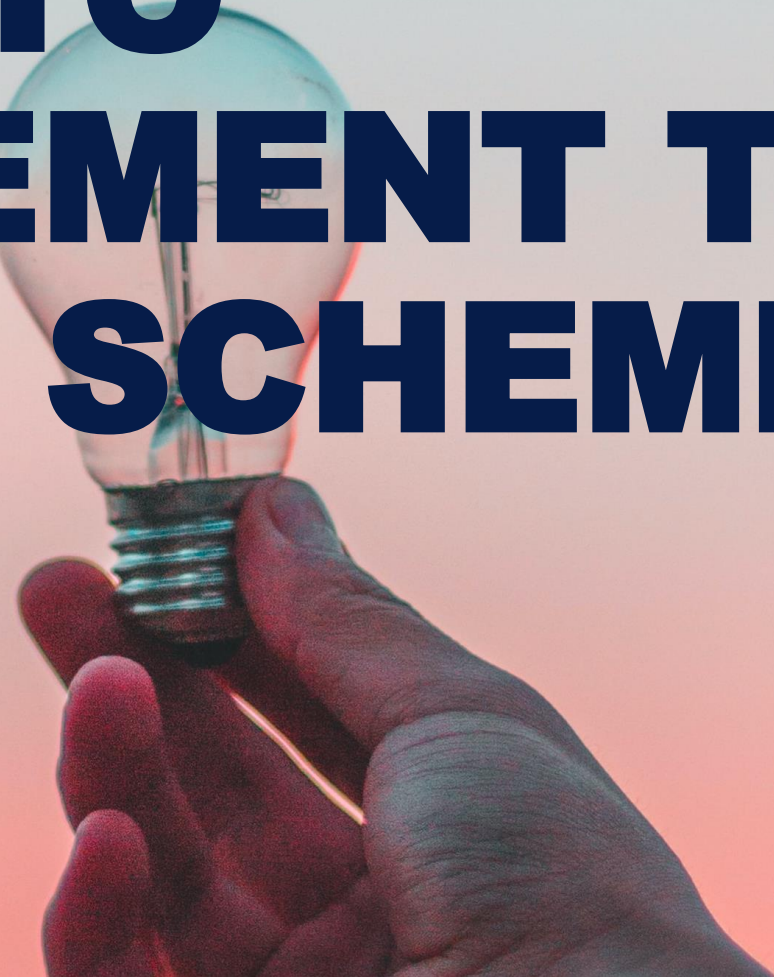


Photo by Diego PH on Unsplash

OUR 5 KEY PRINCIPLES FOR SUCCESS

01 

Understand the context

02 

Make it accessible

03 

Collaborate

04 

Be transparent

05 

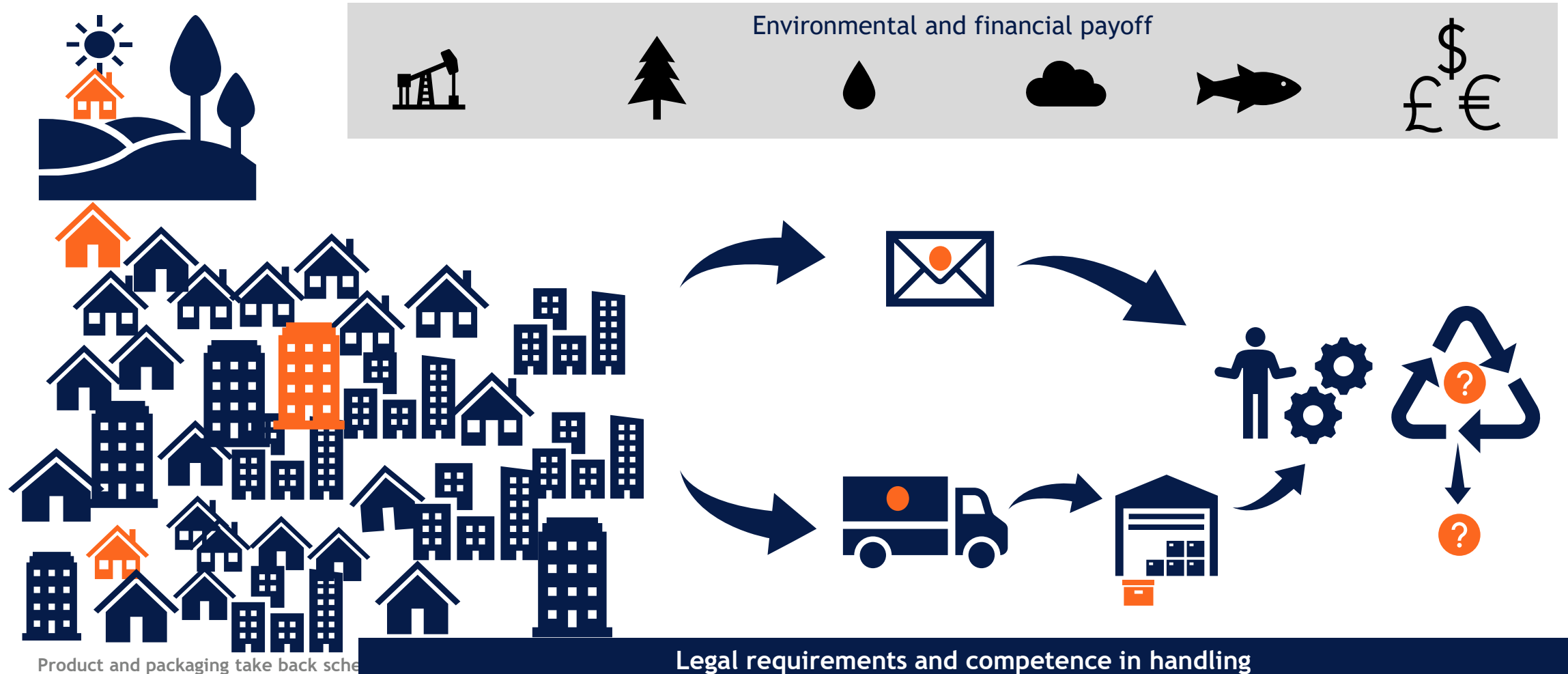
Ensure net
environmental benefit

Systems must be ethically operated and legally compliant

PRINCIPLE 01: UNDERSTAND THE CONTEXT



Understand the challenges



PRINCIPLE 01: UNDERSTAND THE CONTEXT



Understand the local landscape



Regulation

- What current and future regulation will influence the approach?
- How are materials controlled and movements restricted?
- Are there any government incentives for change?



Infrastructure

- How are these products disposed of currently?
- Are other take back schemes in place?
- What treatment infrastructure is available?



Consumer

- How much material is being used in total?
- What is current consumer behaviour?
- How high is awareness?



Influencers

- Are other organisations or associations active?
- Who are the influencers?
- Who are the potential partners?

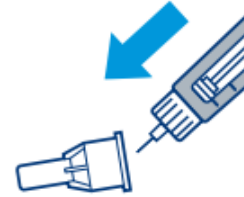
PRINCIPLE 02: MAKE IT ACCESSIBLE



Schemes should be easily accessible to patients, ideally:

- Simple to understand and use
- Free of cost and other barriers
- Available across different geographical areas

1



Remove the needle from your empty pen and dispose of it carefully in your normal way (do not put the needle in the PenCycle return box)

2



Drop your empty pen in your return box

3



When the return box is full, either return it to your nearest participating pharmacy or mail it back to us free of charge

Novo Nordisk PenCycle offers postal and drop off return options

PRINCIPLE 03: COLLABORATE



Collaboration can:

- Increase accessibility
- Bring more powerful messaging
- Give access to new expertise and resources
- Increase operational efficiency
- Increase market power

Potential delivery partners:



Trade
associations



Health service
providers



Retailers &
pharmacies



Waste operators



Postal, courier
and distribution
services



Brand owners

Potential advisers and influencers:



NGO's



Special interest
groups



Recycling and
waste associations



Environmental
agencies

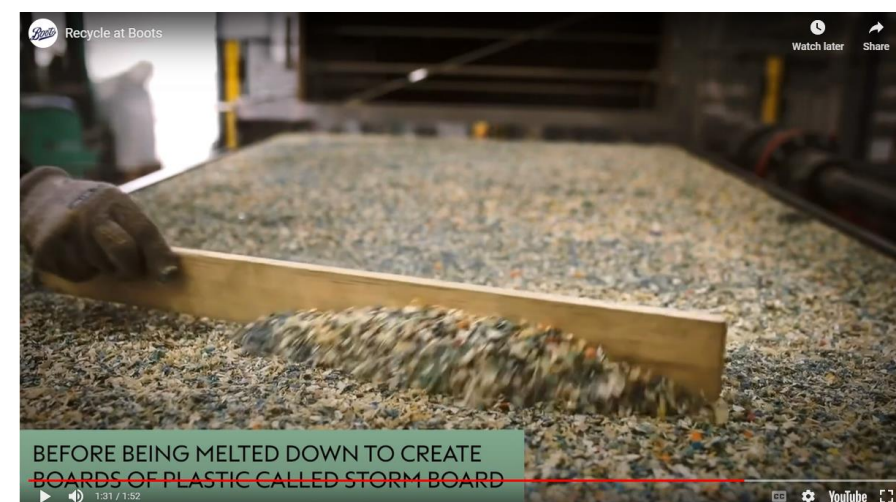
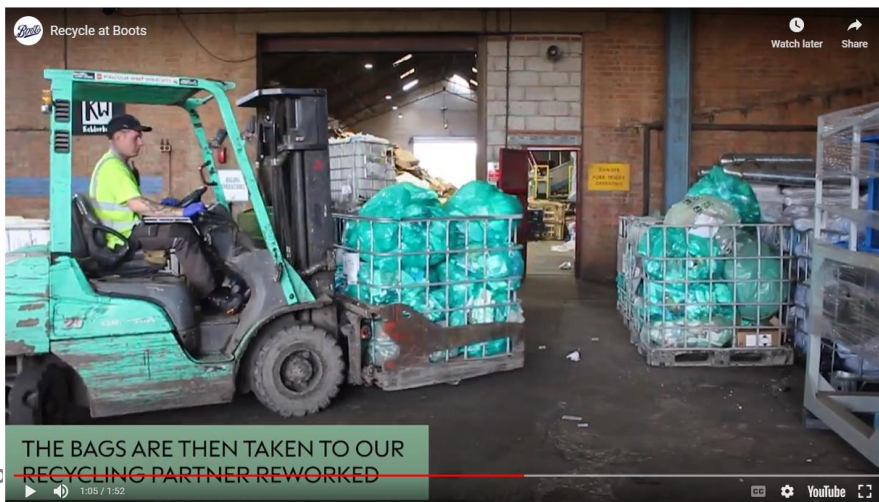


Product labelling
organisations

PRINCIPLE 04: BE TRANSPARENT



Understand exactly what happens during collection, bulking and reprocessing and describe this to consumers.



Images from
Recycle at
Boots scheme
video

Product and p

PRINCIPLE 05: NET ENVIRONMENTAL BENEFIT

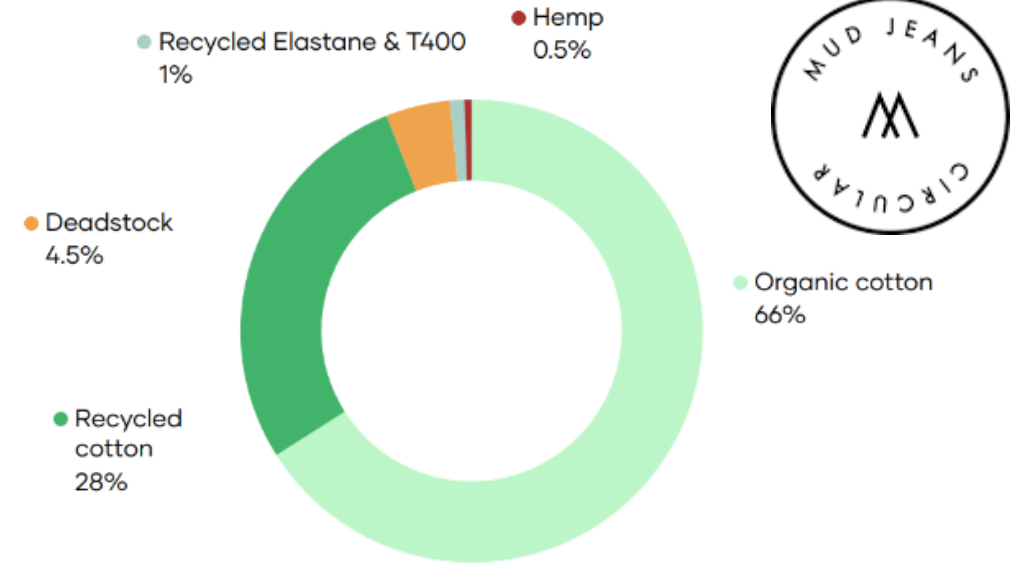


Thoroughly assess implications of different options:

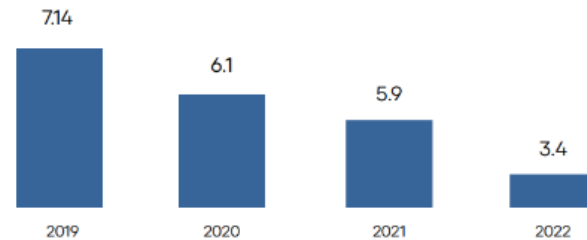
- Consider different environmental indicators
- Include everything!
- Model potential variance in performance
- Mitigate risks and conflicts with other collection systems

Mud Jeans- Sustainability report includes data on use of recycled cotton from their take back scheme. Does not include impact of reverse logistics...I've not found any perfect examples yet!

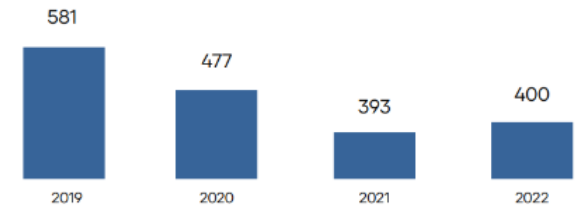
Product and packaging take back schemes



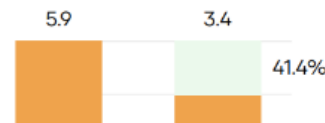
CO₂ impact per jeans



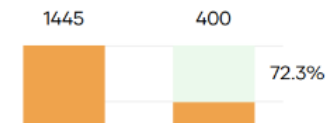
Water impact per jeans



2022 impact savings



2022 impact savings



FURTHER INFORMATION

A free guide to implementing take back schemes is available from Anthesis. Scan the QR code below to access the download page:



Or email me: lizzie.smith@anthesisgroup.com



CONTACT INFORMATION

Please contact me if you are interested in support with take back schemes or with any questions or comments.

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Photo by Roshan Dhimal on Unsplash